AMENDMENT UNDER 37 C.F.R. 1.116 and 1.173   ATTY DOCKET NO.: Q75265
U.S. APPLN. NO.: 10/609,438

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1 (original): A signal compressing system, comprising:

coding means for simultaneously scanning a first signal according to a plurality of different scanning patterns to provide respective coded versions thereof;

selection means for selecting one of said scanning patterns which produces efficient sub-block coding according to a predetermined criterion and for outputting a scanning pattern signal identifying the selected scanning pattern and the selected coded version of said first signal; and

a variable length coder to variable length code the received selected coded version of said first signal which is produced by scanning according to the selected scanning pattern.

2 (original): A system according to claim 1, wherein the coding means codes the first signal according to a runlength coding regime.

3 (original): A system according to claim 2, further comprising discrete cosine transformer means to produce said first signal.

4 (original): A system according to claim 2, further comprising a discrete cosine transformer generating said first signal.

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5 (original): A system according to claim 1, further comprising discrete cosine transformer means for producing said first signal.

6 (original): A system according to claim 5, wherein said transformer means is a motion-compensated interframe adaptive discrete cosine transformer.

7 (original): An image data compressing system comprising:

means for obtaining a difference between the present frame and a preceding motion-compensated frame of an image signal;

means for coding the difference by discrete cosine transform coding and quantizing the discrete cosine transform coded image signal difference and inverse discrete cosine transform coding the quantized image signal;

means for compensating motion of the image signal;

means for coding the quantized image signal by variable length coding;

a selector for selecting an appropriate image scanning pattern from at least one of a plurality of image scanning patterns;

a multi-scanner for simultaneously scanning the quantized image signal by various said scanning patterns;

a scanning mode selector for selecting a scanning mode in which a number of bits produced from a start to an end of a data sub-block is minimized, wherein said means for coding the image signal output of the scanning mode selector by way of variable length coding; and

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a multiplexer for multiplexing the variable length coded signal and the scanning pattern

selecting signal output by the scanning pattern selector and for outputting the multiplexed signal.

8 (original): A signal compressing system for coupling a first signal representing a video

signal to a first coder as a selected coded signal, said system comprising:

a second coder for simultaneously scanning said first signal according to a plurality of

different scanning patterns and producing respective coded signals; and

a selector receiving said coded signal for selecting one of said scanning patterns based

upon a predetermined sub-block selection criterion and for outputting a scanning pattern signal

identifying the selected scanning pattern and said selected coded signal.

9 (original): A system according to claim 8, wherein said second coder codes said first

signal according to a runlength coding regime.

10 (original): The system according to claim 9, wherein said first coder comprising a

variable length coder to variable length code said selected coded signal.

11 (original): The system according to claim 9, further a comprising discrete cosine

transformer for generating said first signal.

12 (original): The system according to claim 8, wherein said first coder comprising a

variable length coder to variable length code the received selected coded signal.

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13 (original): The system according to claim 12, further comprising a discrete cosine transformer producing said first signal.

14 (original): The system according to claim 13, wherein said transformer comprises a motion-compensated interframe adaptive discrete cosine transformer.

15 (original): The system according to claim 8, further comprising a discrete cosine transformer producing said first signal.

Add new claim 16 as follows:

16. A decoder for decompressing a compressed video signal, the compressed video signal containing entropy encoded data representing a set of video spatial frequency coefficients of an individual sub-block which have been scanned using a selected one of a plurality of different scanning patterns to produce a set of reordered coefficients, and also containing a scanning mode signal indicating the selected one of the plurality of different scanning patterns, the decoder comprising:

an entropy decoder operative to decode the entropy encoded data, said entropy encoded data being Huffman coded, and to output entropy decoded data; and

a scanner operative to scan the entropy decoded data according to the one selected pattern of the plurality of different scanning patterns as indicated by the scanning mode signal.

Cancel claims 17-64.

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Add new claims 65-71 as follows:

65. A decoder, comprising:

decoding means to which is applied a coded data signal including a compressed video signal, the compressed video signal including entropy encoded data representing a set of video spatial frequency coefficients of an individual sub-block which have been scanned using a selected one of a plurality of different scanning patterns and, the coded data signal also including a scanning mode signal indicating the selected one of the plurality of different scanning patterns, said decoding means for entropy decoding the entropy encoded data and for outputting entropy decoded data; and

scanning means for scanning the entropy decoded data according to the selected pattern indicated by the scanning mode signal.

66. The decoder according to claim 65, wherein the coded data signal further includes additional information.

67. The decoder according to claim 65, wherein the entropy encoded data and the scanning mode signal are multiplexed together as part of the coded data signal, and wherein said decoder further includes a demultiplexing means for demultiplexing the entropy encoded data, the scanning mode signal and the additional information.

68. The decoder according to claim 65, wherein the entropy encoded data is encoded according to a Huffman encoding regime.

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69. The decoder according to claim 65, wherein the scanning means scans the entropy decoded data according to a runlength decoding regime.

70. The decoder according to claim 65, further comprising dequantizing means for dequantizing the scanned data output by said scanning means and for outputting dequantized data.

71. The decoder according to claim 70, further comprising inverse discrete cosine transformer means for inverse discrete cosine transforming the dequantized data output by said dequantizing means.

Cancel claims 72 - 95.

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